**ANTIBIOTICS, PROGRESS, AND CHALLENGES**: Sp18

**WELCOME TO BIOLOGY SEMINARS**: This seminar series provides the opportunity for senior students to present a scientific topic to your peers. The primary purpose of the seminar is to give students experience making oral presentations and to teach critical thinking.

**WHEN**: M 16–17

**WHERE**: S228

**COORDINATOR**: Dr. Alexandra Martynova-Van Kley

**OFFICE**: TR 14:00-15:00, 17:00-18:00 or by appointment; room S236

**EMAIL**: avankley@sfasu.edu

**TELEPHONE**: 468 - 2569

**COURSE DESCRIPTION** The seminar is going to be focused on understanding the biology of microbes, their behavior, how they cause disease, how they develop resistance to antimicrobials. You may choose microbial, chemical, biochemical, computational, and genomic approaches that provide insights into mechanisms of resistance, treatment strategies and drug discovery of antimicrobials.

**PRESENTATION TOPICS & SOURCES**: For each presentation, a student will select a topic representing recent critical steps in the development of biological sciences. Students could use a Nobel Prize speech. In addition, presentations must be based on at least 7 references from the primary literature (Cell, Biochemistry, Physiology, Ecology, Journal of Biochemistry, Scientific Monographs, Science, Nature, TX Journal of Science, etc.) including and relating to the work. Students must clearly indicate the topic with the instructor by the due date. All topics will be announced to all the students in the class ahead of time in order for everybody to be ready for the discussion after the presentation.

**ABSTRACTS**: The abstract should be a 200-word description of your presentation. (See the handout). The abstract has to be submitted in two versions: electronically and as a hard copy.

**BIBLIOGRAPHY**: A minimum of 10 references should be used in preparation for your seminar coming from the primary literature. Others can come from published books, symposium proceedings, and literature review articles. Web pages, which are not subject to any form of peer review, are not acceptable sources (although they can sometimes lead you to good references for published articles). A copy of the front page of each article or publication you used must be turned in on the day of your presentation along with a bibliography (Literature Cited list) of all the sources you used.

**PRESENTATION**: You will sign up for your presentation date. Presentations should last no more than 15 minutes. This format (often you are allowed only 12 minutes!) is typical for presentations at scientific meetings. Expect questions from your classmates and me after your presentation. Your talk should include visual aids to support your ideas and concepts. Keep the use of videos to a minimum (check presentation evaluation pdf form in grading criteria section). You have to turn in your presentation (ppt) electronically and as a hard copy before your presentation.

**PARTICIPATION**: Attendance is mandatory. Students will be expected to be present at all class meetings and presentations. Students are expected to compose and turn in as a hard copy at least 5 written questions for each topic presented in the class that day (for other students' presentations) and take part in discussion after each presentation.

**CONSULTATIONS**: Each student must meet individually with me at least once to clear the content of their topic. Students are also encouraged to meet with me periodically to discuss progress on their presentations.

**BIOLOGY SPECIAL FIELDS TEST**: (see handout) The Biology Department requires that all majors take the special fields test before they graduate. Taking this test is therefore a requirement for Biology 470. You will be provided an opportunity to sign up to take this on-campus test. Students failing to take the test will receive a withheld grade (WH) for the course.
01/22 Class meeting, Syllabus etc
01/29 Class meeting: Topics due (think of two possibilities); schedule presentation date
02/05 Class meeting: How to make a good presentation, bibliography, abstract
02/12 Come see me! (office consultation time, room 236)
02/19 Come see me! (office consultation time, room 236)
02/26 Come see me! (office consultation time, room 236)
03/05 Class meeting, Abstracts and bibliography due at noon by e-mail. Bring presentation drafts (at least 10 slides) printed along with abstracts to class at 16:00
03/12 Spring break
03/19 Come see me! (office consultation time, room 236)
03/26 Come see me! (office consultation time, room 236)
04/02 Come see me! (office consultation time, room 236)
04/09 Come see me! (office consultation time, room 236)
04/16 Class meeting: presentations
04/23 Class meeting: presentations
04/30 Class meeting: presentations
05/07 Finals

Checklist
- Abstract & Bibliography (electronic version and a hard copy)
- Oral presentation (electronic version and a handout)
- At least 5 written questions for each student topic/presentation
- Participation in discussions after each presentation
- Office consultation meeting (at least 3)
- Attendance
- MFT

Grading Criteria
- Abstract & Bibliography (electronic version and a hard copy)
- Oral presentation (electronic version and a handout)
- At least 5 written questions for each student topic/presentation
- Participation in discussions after each presentation
- Office consultation meeting (at least 3)
- Attendance
- MFT